Dounreay Site Restoration Ltd

PARTICLES PROGRESS REPORT

November 2009 to March 2010

1 BEST PRACTICAL ENVIRONMENTAL OPTION (BPEO) PROCESS

The BPEO sets out the proposals for seabed clean-up with a targeted seabed area, where most significant and relevant particles are believed to be located following examination of available data by DPAG, of 60 hectares.

A contract has now been let with LMPE for the construction of a new ROV and its operation to recover particles. Following testing of the new system, recovery work is currently expected to commence at the beginning of July 2010.

2 OFFSHORE WORK

2.1 Off-shore particle retrieval

Since offshore operations are seasonal (May-September) no further work has been carried out offshore at Dounreay since the previous retrievals completed on 3rd August 2009.

Following a contract procurement process DSRL has identified the preferred bidder for the next phase of offshore clean-up work. All results of the forthcoming work will be reported to the Particles Retrieval Advisory Group (Dounreay) PRAG(D). This expert group makes recommendations to SEPA and DSRL about how best to manage particle contamination in the environment. They should be able to provide statistical assessment of the plume figures once the 2010 season work has been completed.
Minutes from PRAG(D) meetings can be found at the following link:
http://www.sepa.org.uk/radioactive_substances/decommissioning/dounreay/particles_advisory_group.aspx

3 THE OLD EFFLUENT DISCHARGE SYSTEM

An Environmental Safety Case for the remediation of the Old Liquid Effluent Discharge System (OLED) has been written and provided to SEPA. The safety case has determined that, taking relevant factors into account, with minimal intervention in the form of targeted grouting, the OLED system will remain passively stable for 100,000 years.

A strategy document has been produced and accepted by DSRL management that outlines the proposals for decommissioning of the OLED. In summary, this proposes grouting of the diffuser risers and associated fractured rock, as far as is reasonably practicable, in the near future. In 2020, when the current effluent discharge system is no longer required, the discharge pipelines for both the old and new systems will be grouted down to the north side of the Shaft Isolation Zone, thus reducing the potential for any human access.

A requirement was placed on DSRL, by means of a variation of the sites RSA Authorisation, to supply information on the options for dealing with the Old Liquid Effluent Discharge System (OLEDS). This information has now been delivered to SEPA and includes the output of an option study, an associated Environmental Safety Case in support of the preferred option and a Senior Management position paper. The submission is currently being reviewed by SEPA. DSRL will discuss the implementation work with SEPA and consider the implications of leaving the system in place, before any seabed work is undertaken.

4 DOUNREAY PARTICLES: PRAG(D)

PRAG(D) is producing its first report for SEPA . This will detail the findings of the group with regard to the works carried out by DSRL over the past year and make any recommendations it believes necessary for the future.

5 MONITORING OF BEACHES

The statutory beach monitoring programme continues as per the SEPA Authorisation requirements.

continue to be surveyed, along with the strandlines, until SEPA report the habit survey for the beach, currently expected at the end of March. The next surveys are scheduled for March 2010. The data gained from the habit survey will form part of SEPA's review of beach monitoring.

6 KEY DATES

Date	Description
3 June 10	New ROV system built and tested
23 June 10	Particles Retrieval Advisory Group (Dounreay)
01 July 10	Commence offshore recovery operations
27 Oct 10	Particles Retrieval Advisory Group (Dounreay)

Particles Project Team
Dounreay Site Restoration Ltd (DSRL)
1 March 2010

Dounreay Particles Advisory Group (DPAG) – classification of particles

Significant	Caesium 137 activity greater than 1,000,000 Bq	Likely to cause serious ulceration (visible after 1-2 weeks). This may take several weeks to heal along with the associated risk of infection which might require medical treatment.
Relevant	Caesium 137 activity between 100,000 and 1,000,000 Bq	Would require a minimum of 7 hours stationary contact with the skin to have any discernable effect. Indeed, time periods of 1-2 days would be required for any reddening with small lesion of the skin to be observed. The affected area of skin would be expected to heal completely within 2-4 weeks without further problems. Anyone coming into contact with this type of particle is unlikely to experience any observable effects.
Minor	Caesium 137 activity less than 100,000 Bq	Will not cause discernable health effects.